

TS #142972 (Attmt "B")

15 February 1956

**ATTACHMENT "B"**

An upper level research unit equipped with instrumented aircraft having the capability of achieving an altitude of 55 to 60,000 feet would secure highly valuable information about the following items:

- (1) Turbulence
  - (a) Associated with jet stream
  - (b) Tropopause
  - (c) Lower stratosphere
- (2) Detailed temperature structure
  - (a) Tropopause
  - (b) Lower stratosphere
- (3) Wind structure
- (4) Measurement of ozone concentration at various altitudes
- (5) Diffusion of gases in the stratosphere
- (6) Rate and method of interchange of air between the stratosphere and troposphere
- (7) Water vapor content of the lower stratosphere
- (8) Vertical motion in the upper troposphere and lower stratosphere
- (9) Visibility at tropopause
- (10) Chemical analysis of air samples in layers of restricted visibility at high altitudes
- (11) Air trajectories

The information listed above could be secured at many locations. However, maximum results would be achieved by approximately simultaneous observations made at various areas over the Northern Hemisphere.